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| EXAMINER |
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SHINGLES, KRISTIE D

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| ART UNIT | PAPER NUMBER |
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2141

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04/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/846,991

Applicant(s)

SHIBATA, HIROSHI

Examiner

Kristie D. Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 49-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 and 49-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Response to Amendments

*Claim 1 has been amended.*

*Claims 47-48 are cancelled.*

*Claims 50-52 are newly added.*

*Claims 1-46 and 49-52 are pending.*

### Response to Arguments

I. Applicant's arguments filed 2/6/2007 have been fully considered but they are not persuasive.

- A. Regarding Claims 1, 9, 15, 23, 31 and 39: Applicant argues that the cited prior art of record, *Sampath et al* (US 6,665,425) in view of *Hockey et al* (US 6,181,886), fail to teach "sending a request for supplying the consumable product to the manager using the electronic communications address when the detector detect that the consumable product is nearly ended".

Examiner respectfully disagrees. *Sampath et al* teach providing diagnostic results and image defect information to a service engineer and requesting reparative action from service engineer using various notification methods—including email, paging and cellular phones—when defects and problems are detected in the machine (*Abstract, col.7 lines 3-21, col.8 lines 1-26, col.11 lines 2-13*). *Sampath et al* further disclose the detection of defects that include image quality parameters, wherein reparative actions include replacing consumables (*col.8 lines 41-51*). Thus it is evident that *Sampath et al*'s teachings achieve the functionality of Applicant's claim language. Applicant's arguments are therefore unpersuasive.

- B. Regarding Claims 1, 9, 15, 23, 31 and 39: Applicant argues that the cited prior art of record, *Sampath et al* (US 6,665,425) in view of *Hockey et al* (US 6,181,886), fail to teach that the request for supplying the consumable product includes "the

**identification of the apparatus, the specification of the consumable product, and the identification of the service depot”.**

Examiner respectfully disagrees. As indicated above in response to argument A, *Sampath et al* teach notifying a service engineer when a defect is detected in order to repair the defect (*Abstract, col.7 lines 3-21, col.8 lines 1-26, col.11 lines 2-13*). Although not explicitly stated, it can be concluded from *Sampath et al*'s teaching that the notification to the service engineer would include an identification of the defective machine, the nature of the defect and the identification of the service engineer. However, *Hockey et al* distinctly teach wherein notification to a service person includes specification of the consumable product in order for the service person to keep track of the state of product to determine when it should be replenished (*col.6 lines 58-63*). From the use of warnings/notifications taught in the prior art, it can be implied that identification of the machine, defect, and service person would be inherent elements in the warnings/notifications that effectively communicate the relevant information needed in order for the service person to perform the required reparative actions. Applicant's arguments are therefore unpersuasive.

- C. **Regarding Claims 1, 9, 15, 23, 31 and 39: Applicant argues that the cited prior art of record, *Sampath et al* (US 6,665,425) in view of *Hockey et al* (US 6,181,886), fail to teach “sending a report for reporting a completion of supplying the consumable product on the apparatus when the detector detects that the consumable product is refilled”.**

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Examiner respectfully disagrees. *Sampath et al* teach verifying satisfactory operation of the machine after the repair action has been performed (*col.8 lines 36-39, col.11 lines 10-13 and 45-46*). Since *Sampath et al* does disclose replacing consumables used by the machine, it can be concluded that the verification process disclosed in *Sampath et al* would verify that the consumable has been satisfactorily refilled. Nevertheless, *Hockey et al* teach logging incremental warning to a service person to identify the state of the consumable product, which allows the service person to monitor the state of the consumable (*col.6 lines 58-63, col.7 lines 25-55, col.8 lines 20-25*). Applicant's arguments are therefore unpersuasive.

- D. Regarding Claims 5, 12, 20, 28, 35 and 39: Applicant argues that the cited prior art of record, *Sampath et al* (US 6,665,425) in view of *Hockey et al* (US 6,181,886), fail to teach “(a) automatically detecting an event indicative of a defect in a maintenance component being used in the apparatus, (b) sending a request for the repair service to the manager and the service depot using the respectively registered electronic communications addresses when the detector detects the event, (c) sending a report for reporting a completion of the repair service on the apparatus when the detector detects no defect of the maintenance component, and (d) the request includes the identification of the apparatus, the specification of the maintenance component, and the identification of the service depot”.**

Examiner respectfully disagrees. Regarding limitation (a), *Sampath et al* teach detecting a defect in a machine (*Abstract*) while *Hockey et al* teach detecting when consumable of a machine should be replaced (*Abstract*). Regarding limitation (b), *Sampath et al* teach providing diagnostic results and image defect information to a service engineer and requesting reparative action from customer and/or service engineer using various notification methods—including email, paging and cellular phones—when defects and problems are detected in the machine (*Abstract, col.7 lines 3-21, col.8 lines 1-26, col.11 lines 2-13*). In response to limitation (c), *Sampath et al* teach verifying satisfactory operation of the machine after the repair action has been performed (*col.8 lines 36-39, col.11 lines 10-13 and 45-46*). *Sampath et al* further disclose

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replacing consumables used by the machine (*col.8 lines 41-51*); implementation of the verification process thus implies that when the detected defect involves replacing a consumable, the replacement is verified in order to determine if the defect has been corrected (*col.5 lines 4-8, Figure 10*). Nevertheless, *Hockey et al* teach logging incremental warning to a service person to identify the state of the consumable product, which allows the service person to monitor the state of the consumable (*col.6 lines 58-63, col.7 lines 25-55, col.8 lines 20-25*). Furthermore, regarding limitation (d), as discussed in response to argument B, *Sampath et al* teach notifying a service engineer when a defect is detected in order to repair the defect (*Abstract, col.7 lines 3-21, col.8 lines 1-26, col.11 lines 2-13*). Although, not explicitly stated, it can be concluded from this teaching that the notification to the service engineer would include an identification of the defective machine, the nature of the defect and the identification of the service engineer. It is obvious that communication includes identification of a source and destination—in this case, the source would be the defective machine and the destination would be the service engineer. Nonetheless, *Hockey et al* distinctly teach wherein notification to a service person includes specification of the consumable product in order for the service person to keep track of the state of product to determine when it should be replenished (*col.6 lines 58-63*). From the use of warnings/notifications taught in the prior art, it can be implied that identification of the machine, defect, and service person would be inherent elements in the warnings/notifications that effectively communicate the relevant information needed in order for the appropriate service person to perform the required reparative actions to fix the defective machine. Applicant's arguments are therefore unpersuasive and the rejection under the cited prior art is maintained.

### **Claim Rejections - 35 USC § 112**

**II.** The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**III. Claims 51 and 52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations involving the determining of whether to send the request “to both said manager and said service depot or only to said manager” and inserting a service depot address in a “To: field of the e-mail and a manager address...in a Cc: field of the e-mail” are not expressly disclosed or supported by Applicant’s specification.

### **Claim Rejections - 35 USC § 103**

**IV.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**V. Claims 1-46 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sampath et al* (US 6,665,425) in view of *Hockey et al* (US 6,181,886).**

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a. **Per claim 1**, *Sampath et al* teach a communications terminal apparatus, comprising:

- a communications system configured to perform electronic communications with a manager supervising said apparatus (*Abstract and col.7 line 57-col.8 line 20*);
- a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, specification of said consumable product, and identification of said service depot (*col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51*); and
- a controller configured to send a request for supplying said consumable product to said manager using said electronic communications address when said detector detects that said consumable product is nearly ended (*Abstract, col.4 line 11-col.5 line 8, col.6 lines 15-50 and col.7 line 50-col.8 line 51*).

*Sampath et al* teach automatically identifying image quality problems in document processing systems, the automatic scheduling of service, parts and/or consumables and automated remediation of faults (*col.1 lines 39-60*) along with the collection of relevant machine data initiating diagnostic routines (*col.3 line 53-col.4 line 10, col.7 lines 3-21, col.8 lines 1-11*) and repair verification (*Abstract, col.5 lines 1-6, col.7 lines 63-67*). Yet *Sampath et al* fail to explicitly disclose a detector automatically detecting a status of usage of a consumable product in said apparatus and supplied by a service depot and send a report for reporting a completion of supplying said consumable product on said apparatus when said detector detects that said consumable product is refilled, said request including said identification of said apparatus, said specification of said consumable product, and said identification of said service depot. However, *Hockey et al* disclose automatic monitoring of the amount of consumable used in printing systems, and issuing a notification to the service person when the consumable has been refilled (*col.1 line 61-col.2 line 3, col.6 lines 49-63*).



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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Sampath et al* with *Hockey et al* for the purpose of providing automated detection capabilities in order to collect the necessary data needed for diagnosing possible machine defects or problems without manual intervention along with notification means for notifying in the case of a repair and when a repair has been has been corrected in order to prevent further service actions.

b. **Claims 5, 9, 12 and 49** contain limitations substantially equivalent to the limitations of Claim 1 and are therefore rejected under the same basis.

c. **Per claim 39**, *Sampath et al* teach a method of maintaining a system that comprises networked units that may require from time to time at least one of replenishing consumables and servicing of components, wherein said consumables or servicing are provided by at least one external facility and said system of networked units is supervised by a manager who need not be at the premises of said units, said method comprising:

- responding to the generation of a first detection signal at the unit to automatically generate and electronically transmit a first notification to each of (a) the manager supervising the networked units, and (b) the at least one external facility (*Abstract and col.7 line 57-col.8 line 20*);
- wherein said first notification identifies at least said unit and said event to thereby advise both the manager and the at least one facility (a) which of the networked units has a requirement and (b) what is the requirement (*col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51*).

*Sampath et al* teach automatically identifying image quality problems in document processing systems, the automatic scheduling of service, parts and/or consumables and automated remediation of faults (*col.1 lines 39-60*) along with the collection of relevant machine data initiating diagnostic routines (*col.3 line 53-col.4 line 10, col.7 lines 3-21, col.8 lines 1-11*)

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repair verification (*Abstract, col.5 lines 1-8, col.7 lines 63-67, col.8 lines 1-45*). Yet *Sampath et al* fail to explicitly disclose automatically detecting a first event indicative of a requirement for replenishing consumables or servicing components at any one of said networked units, and generating a first detection signal in response to a detection of a first event at the unit and automatically detecting thereafter at said unit a second event indicating that the requirement has been satisfied, and generating a second detection signal in response to a detection of said second event; responding to the generation of said second detection signal to automatically generate and transmit a second notification to at least one of said manager and said at least one facility; and said second notification advising that the requirement has been met. However, *Hockey et al* disclose automatic monitoring of the amount of consumable used in printing systems, and issuing a notification to the service person when the consumable has been refilled (*col.6 lines 49-63, col.7 lines 24-43*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Sampath et al* and *Hockey et al* for the purpose of providing automated detection capabilities in order to collect the necessary data needed for diagnosing possible machine defects or problems without manual intervention along with notification means for notifying in the case of a repair and when a repair has been has been corrected in order to prevent further service actions.

d. **Claims 15, 20, 23, 28, 31 and 35** contain limitations substantially equivalent to the limitations of Claims 1 and 39 and are therefore rejected under the same basis.

e. **Per claim 2**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 1, *Sampath et al* further teach wherein said communications system

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performs E-mail communications with said manager (*col.1 lines 61-67 and col.7 line 57-col.8 line 20*).

f. **Claims 6, 10, 13, 18, 26, 32, 36 and 42** contain limitations substantially equivalent to the limitation of Claim 2 and are therefore rejected under the same basis.

g. **Per claim 3**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 1, wherein said consumable product includes toner (*col.7 lines 3-23 and col.8 lines 1-51; Hockey et al: col.1 line 43-45*).

h. **Claims 11, 33 and 44** contain limitations substantially equivalent to the limitations of Claim 3 and are therefore rejected under the same basis.

i. **Per claim 4**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 1, *Sampath et al* further teach wherein said communications system performs facsimile communications with said manager (*col.1 lines 40-67, col.5 lines 9-22 and col.8 lines 11-20*).

j. **Claims 8, 19, 22, 27, 30, 34, 38 and 43** contain limitations substantially equivalent to the limitations of Claim 4 and are therefore rejected under the same basis.

k. **Per claim 7**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 5, *Sampath et al* further teach wherein said maintenance component includes a photoconductor (*col.5 lines 9-22*).

l. **Claims 14, 37 and 46** contain limitations substantially equivalent to the limitations of Claim 7 and are therefore rejected under the same basis.

m. **Per claim 16**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 15, *Sampath et al* further teach the apparatus comprising:

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- an analyzer configured to analyze E-mail including request receipt acknowledgement information notified from either said manager or said service depot with respect to said first E-mail (*col.7 lines 36-67*);
- a display displaying said request receipt acknowledgement information (*col.8 lines 1-20*),
- wherein said mail controlling system controls said display to display said request receipt acknowledgement information analyzed by said analyzer, and controls said display to stop displaying when said consumable product is determined to be in said refilled status based on said detect information detected by said consumable product status detector (*Abstract, col.8 lines 1-51, col.10 line 65-col.11 line 13*).

n. **Claims 21, 24 and 29** contain limitations substantially equivalent to the limitations of Claim 16 and are therefore rejected under the same basis.

o. **Per claim 17**, *Sampath et al* and *Hockey et al* teach a communications terminal apparatus as defined in claim 15, *Sampath et al* further teach wherein said terminal identification information includes at least one of an E-mail address, a serial number, facsimile TTI information, and a telephone number of said apparatus (*col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51*).

p. **Claim 25** contains limitations substantially equivalent to the limitations of Claim 17 and is therefore rejected under the same basis.

q. **Per claim 40**, *Sampath et al* and *Hockey et al* teach a method as in claim 39 including receiving at the unit, *Sampath et al* further teach in response to said transmitting of said first notification, a first communication from at least one of said manager and said at least one external facility and displaying a selected representation of said response at the unit (*col.2 lines 54-58, col.7 lines 36-67 and col.8 lines 1-20*).

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r. **Per claim 41**, *Sampath et al* teach a method as in claim 40 in which said communication is from said at least one external facility and advise when the request is expected to be met (*col.1 lines 52-67 and col.2 lines 54-67*).

s. **Per claim 45**, *Sampath et al* and *Hockey et al* teach a method as in claim 39 *Sampath et al* further teach the method in which said first event is indicative of a requirement to service a heater in said unit (*col.3 line 53-col.4 line 26*).

t. **Per claim 50**, *Sampath et al* and *Hockey et al* teach the communications terminal apparatus of Claim 1, *Hockey et al* further teach wherein said detector detects a remaining amount of consumable product in said apparatus, and sends to said controller a signal including detection information corresponding to the remaining amount of said consumable product detected by said detector (*col.6 lines 21-65*).

u. **Per claim 51**, *Sampath et al* and *Hockey et al* teach the communications terminal apparatus of Claim 5, *Sampath et al* further teach wherein said controller determines based on details of the defect whether to send said request to both said manager and said service depot or only to said manager (*col.5 lines 1-4, col.8 lines 1-25 and 35-51, col.11 lines 2-13 and 38-46*).

v. **Claim 52** contains limitations substantially equivalent to the limitations of Claim 51 and is therefore rejected under the same basis.

### Conclusion

VI. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kodimer et al (6,003,078), Sampath et al (6,892,317), Hayward et al (6,629,134),

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Nawata (5,200,779), Katakabe et al (5,345,297), Kawai (2003/0169450), Sato et al (6,116,722), Yamashita et al (5,873,009), Walker (6,302,527), Kageyama (6,333,790).

**VII. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**VIII.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie D. Shingles whose telephone number is 571-272-3888.

The examiner can normally be reached on Monday 8:00am-5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***Kristie D Shingles***  
***Examiner***  
***Art Unit 2141***

***kds***

  
**RUPAL DHARIA**  
**SUPERVISORY PATENT EXAMINER**